

# Oncology Clinical Pathways

## Esophageal Cancer

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December 2023 – V3.2023



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# Esophageal Cancer – Presumptive Conditions

VA automatically presumes that certain disabilities were caused by military service. This is because of the unique circumstances of a specific Veteran's military service. If a presumed condition is diagnosed in a Veteran within a certain group, they can be awarded disability compensation.

## Atomic Veterans – Exposure to Ionizing Radiation

- Cancer of the esophagus

## Gulf War and Post 9/11 Veterans

If the patient served on or after Sept. 11, 2001, in Afghanistan, Djibouti, Egypt, Jordan, Lebanon, Syria, Uzbekistan, or Yemen or if you served in the \*Southwest Asia theater of operations, or Somalia, on or after Aug. 2, 1990, specific conditions include:

- Gastrointestinal cancer of any type

\* The Southwest Asia theater of operations refers to Iraq, Kuwait, Saudi Arabia, the neutral zone between Iraq and Saudi Arabia, Bahrain, Qatar, the United Arab Emirates, Oman, the Gulf of Aden, the Gulf of Oman, the Persian Gulf, the Arabian Sea, the Red Sea, and the airspace above these locations.

For more information, please visit [U.S. Department of Veterans Affairs - Presumptive Disability Benefits \(va.gov\)](https://www.va.gov/presumptive-disability-benefits/)



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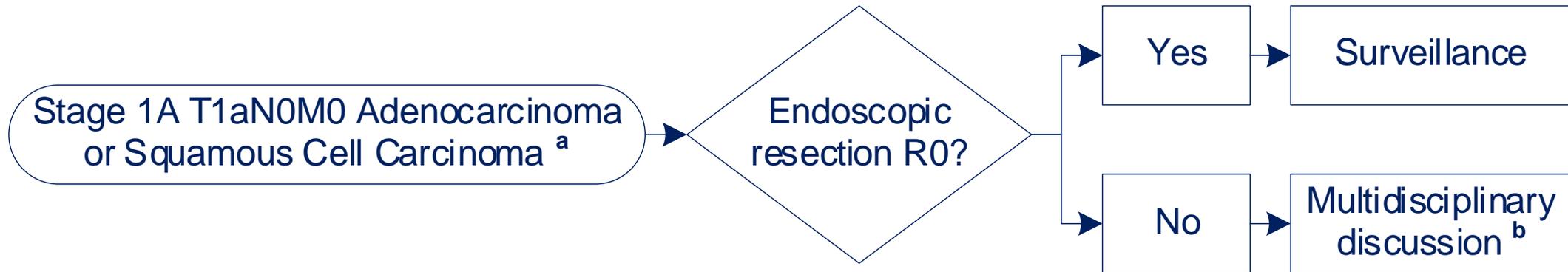
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# Esophageal Cancer – Stage 1A T1aN0M0 Adenocarcinoma or Squamous Cell Carcinoma



Clinical trial(s) always considered on pathway.

<sup>a</sup> **Staging** confirmed during EMR or ESD

<sup>b</sup> **Multidisciplinary Discussion** includes surgery, radiation oncology, and medical oncology

**EMR** Endoscopic Mucosal Resection

**ESD** Endoscopic Submucosal Dissection



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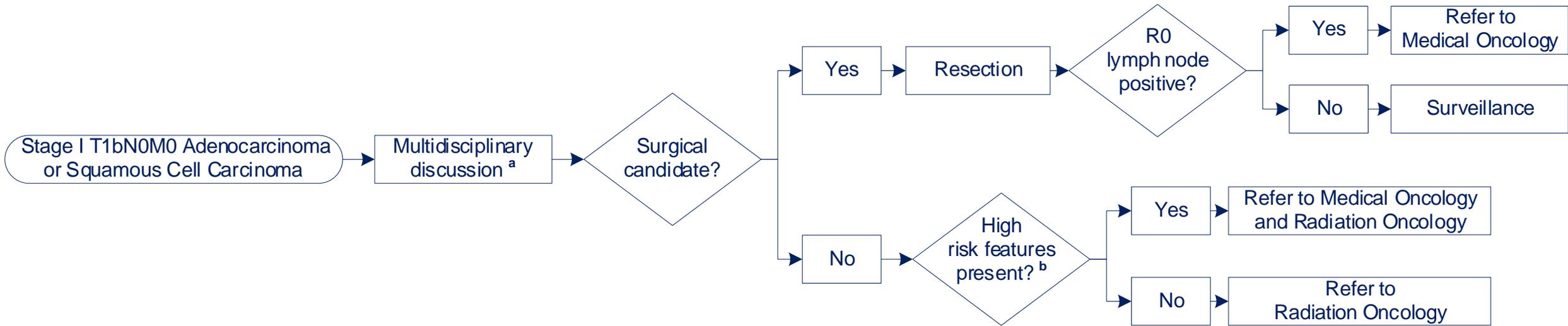
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# Esophageal Cancer – Stage I T1bN0M0 Adenocarcinoma or Squamous Cell Carcinoma



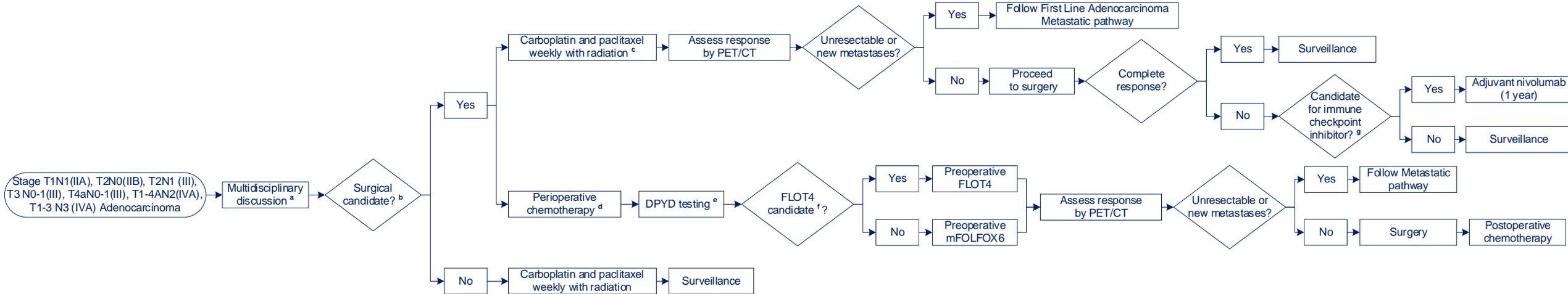
Clinical trial(s) always considered on pathway.

<sup>a</sup> **Multidisciplinary Discussion** confirm stage

<sup>b</sup> **High Risk Features** include lymphovascular invasion, poorly differentiated tumors, tumor size  $\geq 2$ cm, SM1, SM2, or positive margin on EMR

**EMR** Endoscopic Mucosal Resection

# Esophageal Cancer – Stage T1N1(IIA), T2N0(IIB), T2N1 (III), T3 N0-1(III), T4aN0-1(III), T1-4AN2(IVA), T1-3 N3 (IVA) Adenocarcinoma



Clinical trial(s) always considered on pathway.

<sup>a</sup> **Multidisciplinary Discussion** includes surgery, radiation oncology, and medical oncology

<sup>b</sup> **Surgical Candidate** discussion with or evaluation by a surgeon

<sup>c</sup> **Carboplatin and Paclitaxel with Radiation** preferred treatment for predominantly esophageal tumors

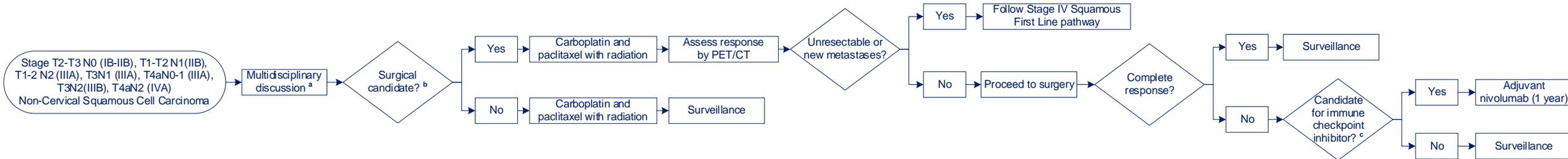
<sup>d</sup> **Perioperative Chemotherapy** preferred treatment for predominantly gastric tumors or patient is not a candidate for radiation

<sup>e</sup> **Perform DPYD Testing If Not Already Performed** if DPYD PGx results return predicted phenotypes of either intermediate or poor metabolizer, please consult your local PGx pharmacist or submit an IFC Pharmacogenomics e-consult for assistance with therapeutic recommendation; a clinician may proceed without DPYD results if withholding chemotherapy for 2-3 weeks may gravely endanger patient's life; for example, if the disease burden is very high and it involves a large portion of vital organs such as liver, etc.

<sup>f</sup> **FLOT4 Candidates** include fit patients with ECOG 0-1 due to expected Grade 3/4 toxicities of neutropenia, infection, diarrhea and peripheral neuropathy

<sup>g</sup> **Qualify for Immune Checkpoint Inhibitor** patient without active autoimmune disease, primary immune deficiency, concurrent immunosuppression (including prednisone equivalent >10mg/day) or prior allogeneic HSCT/solid organ transplant

# Esophageal Cancer – Stage T2-T3 N0 (IB-IIB), T1-T2 N1(IIB), T1-2 N2 (IIIA), T3N1 (IIIA), T4aN0-1 (IIIA), T3N2(IIIB), T4aN2 (IVA) Non-Cervical Squamous Cell Carcinoma

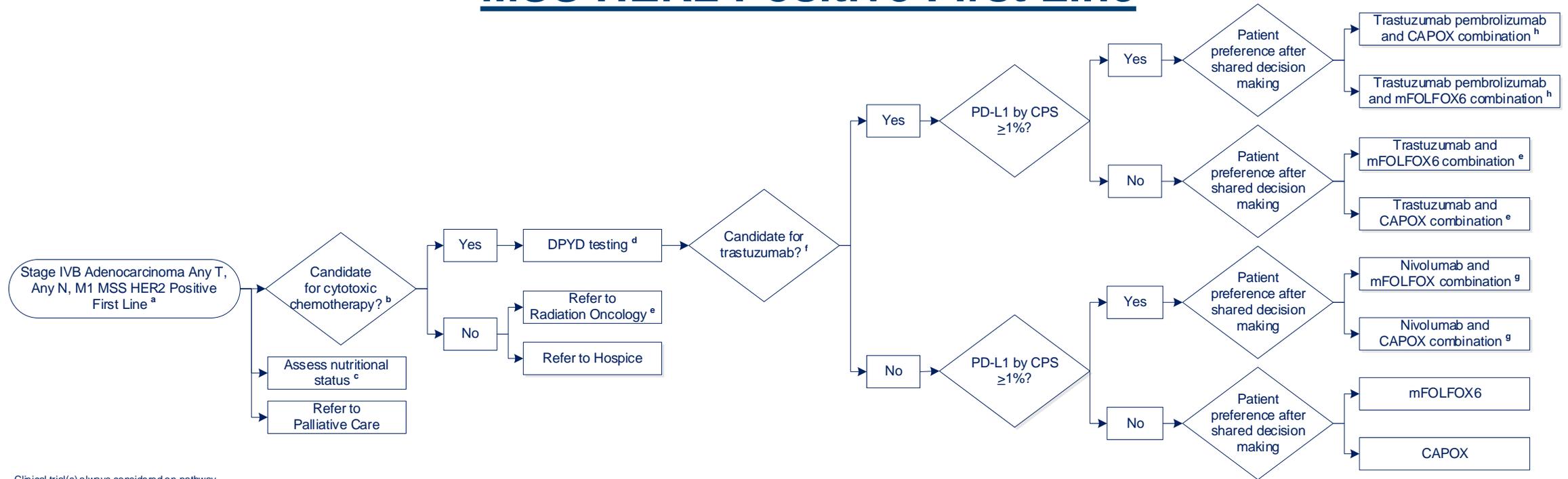


Clinical trial(s) always considered on pathway.

<sup>a</sup> **Multidisciplinary Discussion** includes surgery, radiation oncology, and medical oncology  
<sup>b</sup> **Surgical Candidate** discussion with or evaluation by a surgeon  
<sup>c</sup> **Qualify for Immune Checkpoint Inhibitor** patient without active autoimmune disease, primary immune deficiency, concurrent immunosuppression (including prednisone equivalent >10mg/day) or prior allogeneic HSCT/solid organ transplant

# Esophageal Cancer – Stage IVB Adenocarcinoma Any T, Any N, M1

## MSS HER2 Positive First Line



Clinical trial(s) always considered on pathway.

<sup>a</sup> **HER2 Positive** considered IHC score +3 or an IHC score of +2 and FISH/ISH positive

<sup>b</sup> **Candidate for Cytotoxic Chemotherapy** consider if patient can tolerate a platinum- and fluoropyrimidine-based doublet

<sup>c</sup> **Assess Nutritional Status** and consider palliative stent or other nutritional support modalities when clinically appropriate

<sup>d</sup> **Perform DPYD Testing If Not Already Performed** if DPYD PGx results return predicted phenotypes of either intermediate or poor metabolizer, please consult your local PGx pharmacist or submit an IFC Pharmacogenomics e-consult for assistance with therapeutic recommendation; a clinician may proceed without DPYD results if withholding chemotherapy for 2-3 weeks may gravely endanger patient's life; for example, if the disease burden is very high and it involves a large portion of vital organs such as liver, etc.

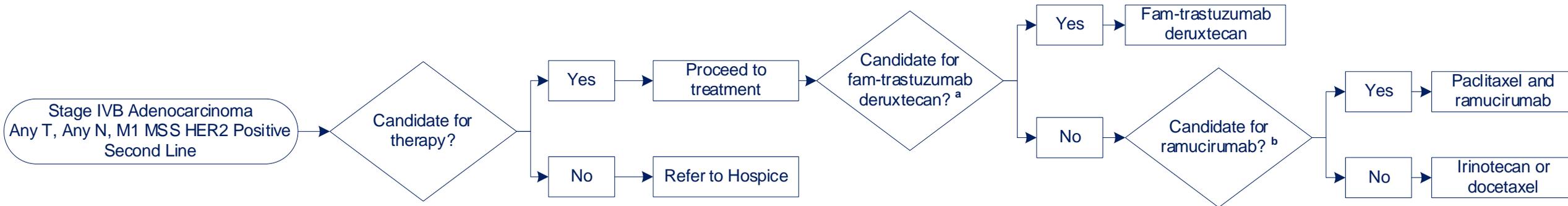
<sup>e</sup> **Radiation Oncology** consider palliative radiation when clinically appropriate

<sup>f</sup> **Candidate for Trastuzumab or Biosimilar** patient with HER2-positive disease and no clinically significant CV disease (defined as LVEF < 50%, MI within prior 6 months, symptomatic CHF (NYHA class II to IV), unstable angina or cardiac arrhythmia requiring therapy)

<sup>g</sup> **Candidate for Immune Checkpoint Inhibitor** patient without active autoimmune disease, primary immune deficiency, concurrent immunosuppression (including prednisone equivalent >10mg/day) or prior allogeneic HSCT/solid organ transplant

<sup>h</sup> **Pembrolizumab** for two years

# Esophageal Cancer – Stage IVB Adenocarcinoma Any T, Any N, M1 MSS HER2 Positive Second Line

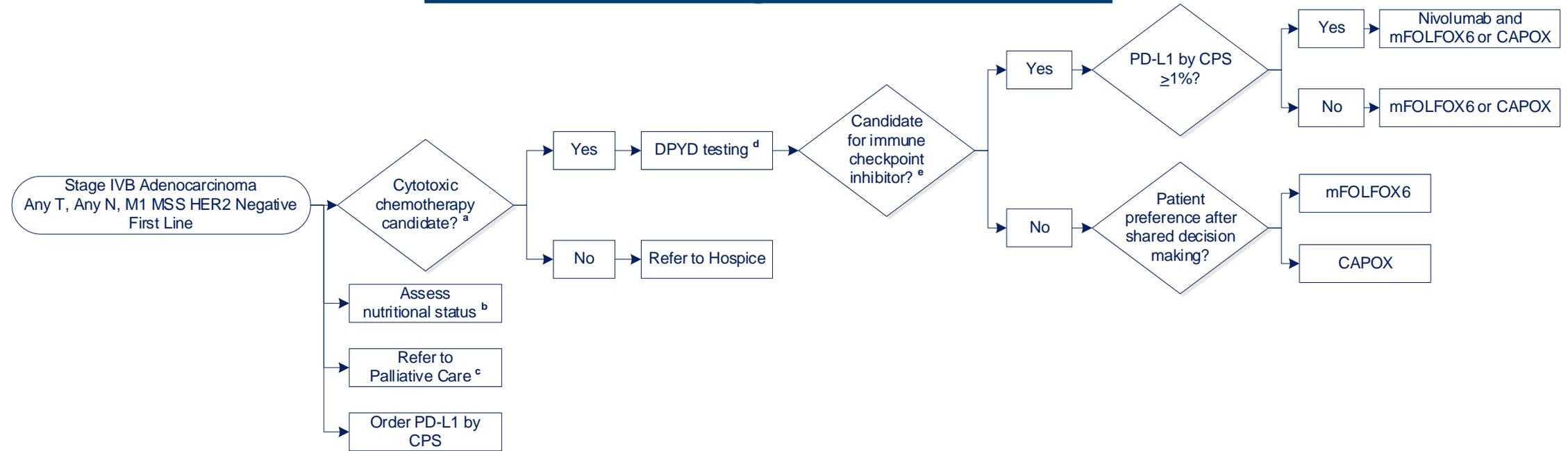


Clinical trial(s) always considered on pathway.

<sup>a</sup> **Candidate for Fam-Trastuzumab Deruxtecan** received trastuzumab in the first-line setting; baseline LVEF  $\geq 50\%$  and/or no clinically significant cardiac disease (defined as LVEF  $< 50\%$ , MI within prior 6 months, symptomatic CHF (NYHA class II to IV), unstable angina or cardiac arrhythmia requiring therapy); no ILD or pneumonitis; ANC  $\geq 1500/\text{mm}^3$

<sup>b</sup> **Candidate for Ramucirumab** received fluoropyrimidine and platinum agent in the first-line setting; ECOG PS 0-2; ANC  $\geq 1500/\text{mm}^3$ . Note: Due to anti-VEGF effects patients with the following should not receive ramucirumab: non-healing wound/fracture, major surgery in prior 4 weeks, bleeding disorder or coagulopathy, recent history of GI perforation, unstable cardiac condition (uncontrolled HTN, arterial thromboembolism, symptomatic CHF (NYHA II-IV) or arrhythmia), or active cocaine use

# Esophageal Cancer – Stage IVB Adenocarcinoma Any T, Any N, M1 MSS HER2 Negative First Line



Clinical trial(s) always considered on pathway.

<sup>a</sup> **Candidate for Cytotoxic Chemotherapy** consider if patient can tolerate a platinum- and fluoropyrimidine-based doublet

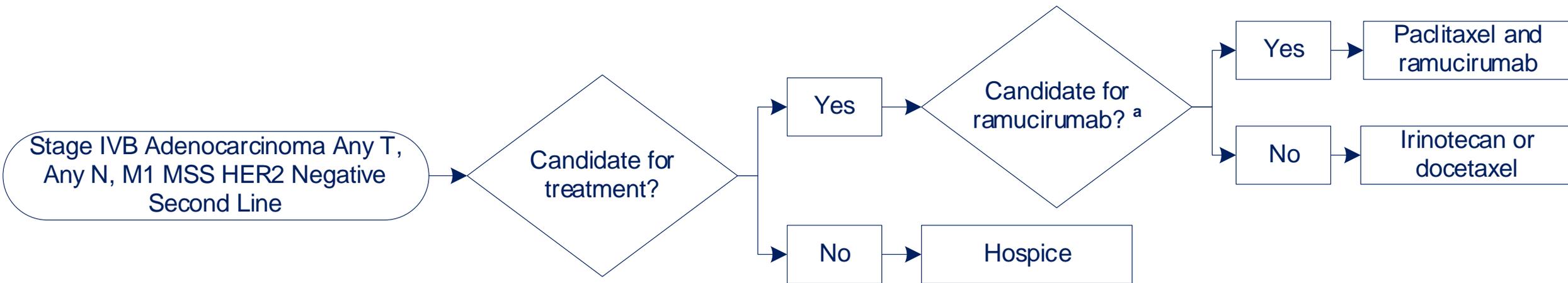
<sup>b</sup> **Assess Nutritional Status** consider palliative stent or other nutritional support modalities when clinically appropriate

<sup>c</sup> **Assess Palliative Care** consider palliative radiation when clinically appropriate

<sup>d</sup> **Perform DPYD Testing If Not Already Performed** if DPYD PGx results return predicted phenotypes of either intermediate or poor metabolizer, please consult your local PGx pharmacist or submit an IFC Pharmacogenomics e-consult for assistance with therapeutic recommendation; a clinician may proceed without DPYD results if withholding chemotherapy for 2-3 weeks may gravely endanger patient's life; for example, if the disease burden is very high and it involves a large portion of vital organs such as liver, etc.

<sup>e</sup> **Qualify for Immune Checkpoint Inhibitor** no active autoimmune disease, primary immune deficiency, concurrent immunosuppression (including prednisone equivalent >10mg/day) or prior allogeneic HSCT/solid organ transplant

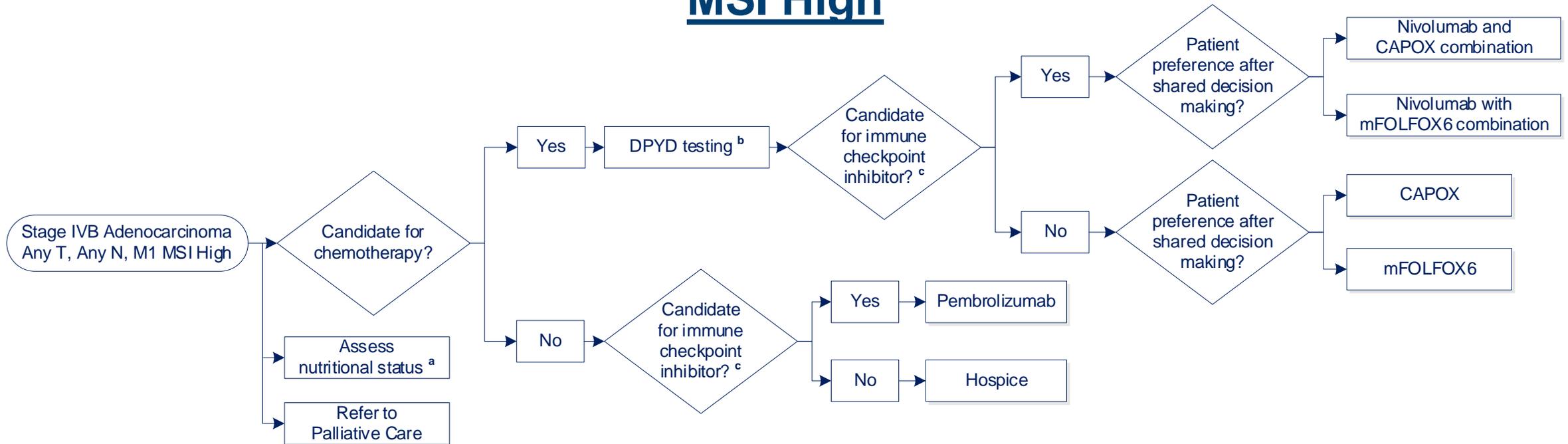
# Esophageal Cancer – Stage IVB Adenocarcinoma Any T, Any N, M1 MSS HER2 Negative Second Line



Clinical trial(s) always considered on pathway.

<sup>a</sup> **Candidate for Ramucirumab** received fluoropyrimidine and platinum agent in the first-line setting; ECOG PS 0-2; ANC  $\geq$  1500/mm<sup>3</sup>; due to anti-VEGF effects patients with the following should not receive ramucirumab: non-healing wound/fracture, major surgery in prior 4 weeks, bleeding disorder or coagulopathy, recent history of GI perforation, unstable cardiac condition (uncontrolled HTN, arterial thromboembolism, symptomatic CHF (NYHA II-IV) or arrhythmia), or active cocaine use

# Esophageal Cancer – Stage IVB Adenocarcinoma Any T, Any N, M1 MSI High



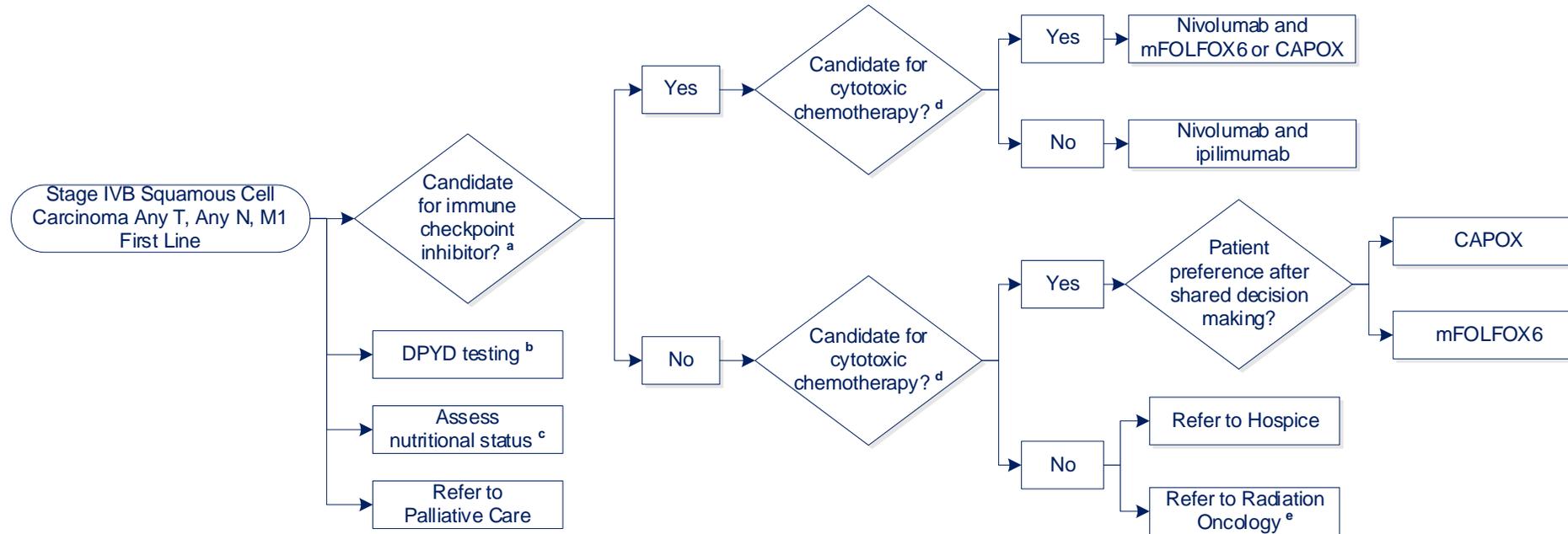
Clinical trial(s) always considered on pathway.

<sup>a</sup> **Assess Nutritional Status** consider palliative stent or other nutritional support modalities when clinically appropriate

<sup>b</sup> **Perform DPYD Testing If Not Already Performed** if DPYD PGx results return predicted phenotypes of either intermediate or poor metabolizer, please consult your local PGx pharmacist or submit an IFC Pharmacogenomics e-consult for assistance with therapeutic recommendation; a clinician may proceed without DPYD results if withholding chemotherapy for 2-3 weeks may gravely endanger patient's life; for example, if the disease burden is very high and it involves a large portion of vital organs such as liver, etc.

<sup>c</sup> **Qualify for Immune Checkpoint Inhibitor** patient without active autoimmune disease, primary immune deficiency, concurrent immunosuppression (including prednisone equivalent >10mg/day) or prior allogeneic HSCT/solid organ transplant

# Esophageal Cancer – Stage IVB Squamous Cell Carcinoma Any T, Any N, M1 First Line



Clinical trial(s) always considered on pathway.

<sup>a</sup> **Qualify for Immune Checkpoint Inhibitor** patient without active autoimmune disease, primary immune deficiency, concurrent immunosuppression (including prednisone equivalent >10mg/day) or prior allogeneic HSCT/solid organ transplant

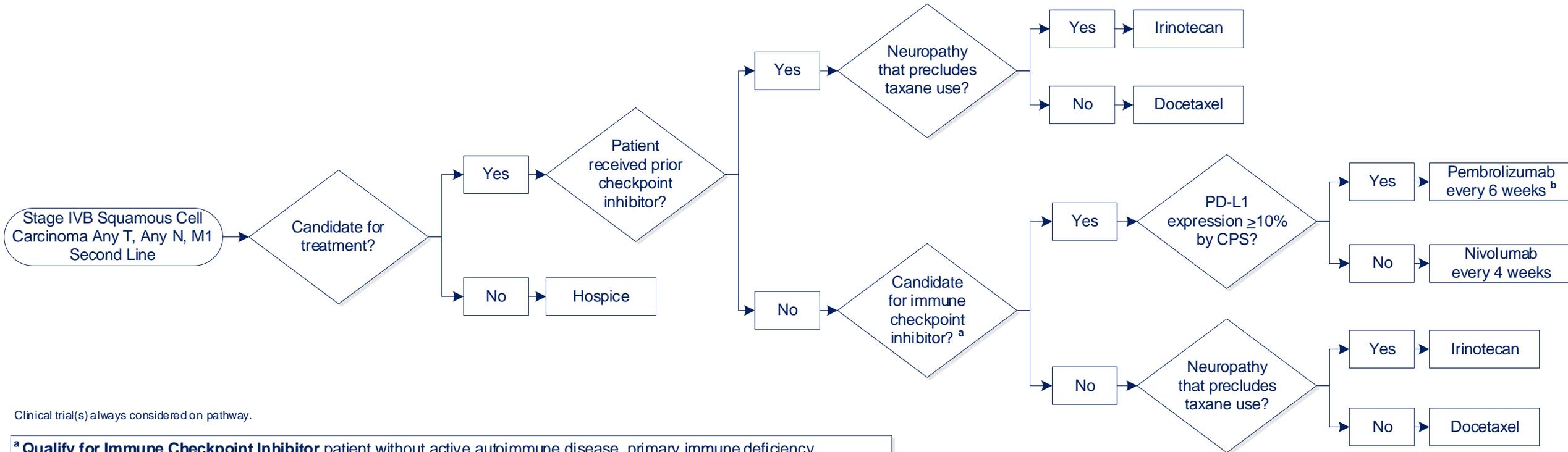
<sup>b</sup> **Perform DPYD Testing If Not Already Performed** if DPYD PGx results return predicted phenotypes of either intermediate or poor metabolizer, please consult your local PGx pharmacist or submit an IFC Pharmacogenomics e-consult for assistance with therapeutic recommendation; a clinician may proceed without DPYD results if withholding chemotherapy for 2-3 weeks may gravely endanger patient's life; for example, if the disease burden is very high and it involves a large portion of vital organs such as liver, etc.

<sup>c</sup> **Assess Nutritional Status** consider palliative stent or other nutritional support modalities when clinically appropriate

<sup>e</sup> **Candidate for Cytotoxic Chemotherapy** consider if patient can tolerate a platinum- and fluoropyrimidine-based doublet

<sup>e</sup> **Radiation Oncology** consider palliative or metastasis-directed radiation when clinically appropriate

# Esophageal Cancer – Stage IVB Squamous Cell Carcinoma Any T, Any N, M1 Second Line

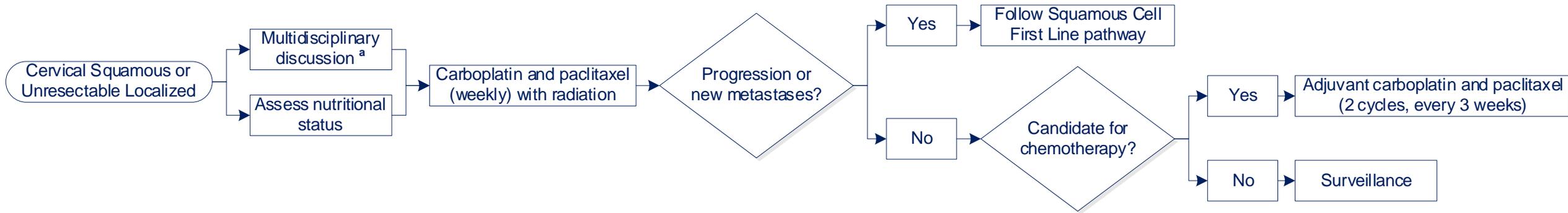


Clinical trial(s) always considered on pathway.

<sup>a</sup> **Qualify for Immune Checkpoint Inhibitor** patient without active autoimmune disease, primary immune deficiency, concurrent immunosuppression (including prednisone equivalent >10mg/day) or prior allogeneic HSC T/solid organ transplant

<sup>b</sup> **Pembrolizumab** chosen due to FDA approval and patient convenience

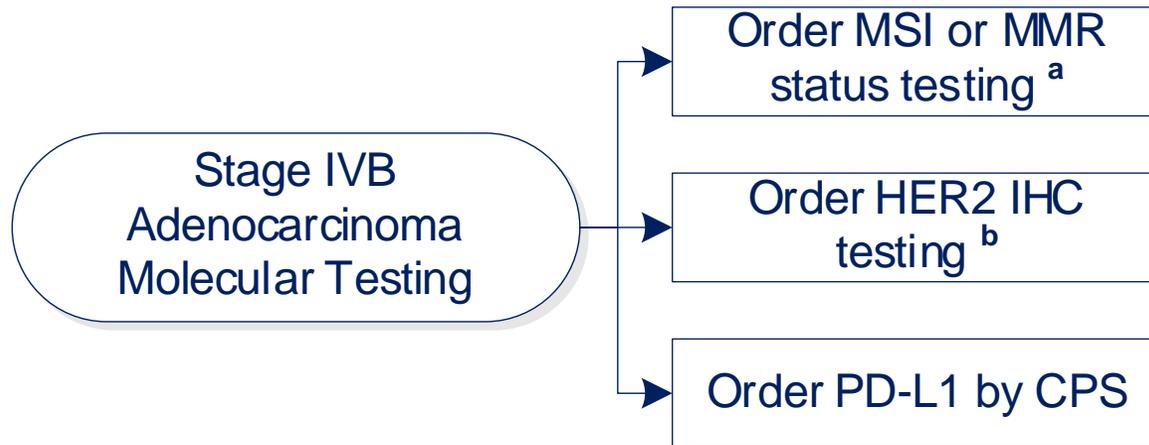
# Esophageal Cancer – Cervical Squamous or Unresectable Localized



Clinical trial(s) always considered on pathway.

<sup>a</sup> **Multidisciplinary Discussion** includes surgery, radiation oncology, and medical oncology; for mid-esophageal tumors, consider referral to Pulmonary to assess tracheal invasion

# Esophageal Cancer – Stage IVB Adenocarcinoma Molecular Testing



Clinical trial(s) always considered on pathway.

<sup>a</sup> **MSI or MMR** PCR or IHC; consider using both methods based on location or personal/family history

<sup>b</sup> **HER2 IHC** if results 2+, HER2 IHC with reflex to FISH required (in-situ hybridization)



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# Esophageal Cancer – Molecular Testing Table

Eligibility	Test Category	Test Type	Recommended Vendors	NPOP Coverage	Specimen Type
Metastatic Esophageal Adenocarcinoma (Stage IVB)	IHC*	Mismatch repair (MMR) genes (MLH1, MSH2, MSH6, and PMS2)	Local VA or locally contracted vendor	No	Tumor Tissue
	PCR*	Microsatellite instability (MSI) status by PCR.	Regional Testing Center (GLA)	Yes	Tumor Tissue, Blood
	IHC	PD-L1 IHC (clone 22C3 with CPS score)	Local VA or locally contracted vendor	No	Tumor Tissue
	IHC	HER2 IHC with reflex to FISH if 2+ on IHC	Local VA or locally contracted vendor	No	Tumor Tissue
	FISH	HER2 FISH if 2+ on IHC	Local VA or locally contracted vendor	No	Tumor Tissue, Blood
Metastatic Esophageal Squamous Cell Carcinoma (Stage IVB)	IHC	PD-L1 IHC (clone 22C3 with CPS score)	Local VA or locally contracted vendor	No	Tumor Tissue
Deficient MMR or MSI-H tumor	Germline NGS	If full germline testing not performed, perform Germline Lynch testing if: 1) MSH2 or MSH6 loss by IHC or 2) MLH1 or PMS2 loss by IHC and <i>MLH1</i> unmethylated or 3) MSI-H without IHC testing and <i>MLH1</i> unmethylated	Fulgent Genetics	Yes	Blood, Saliva

\*Consider performing both IHC and PCR for MMR status if distal location or if there is a personal/family history suspicious for Lynch syndrome.

# Questions?

Contact [VHAOncologyPathways@va.gov](mailto:VHAOncologyPathways@va.gov)



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